What is claimed is:

1. An overhead cable wherein a sectional shape of an outer circumferential surface formed by outermost members is a polygon inscribing a circle of a diameter d (mm), sides of the polygon are formed as substantially flat surfaces connecting adjoining vertexes, vertexes of the polygon inscribing the circle are cut away to form arc-shaped grooves having a radius R (mm) and having a depth H (mm) from the vertexes, and the arc-shaped grooves are formed in spirals in the outer circumference of the overhead cable in a longitudinal direction of the overhead cable at predetermined pitches,

the diameter d of the overhead cable being in a range of 18 to 52 (mm), and

the outer circumferential surface formed by the outermost members being formed so that a number N of vertexes of the polygon and the diameter d satisfy a condition defined by the following formula 1:

$$N=(13.0+0.092d+0.0031d^2) \text{ rounded off} \quad (1)$$

the depth H of each arc-shaped groove and the diameter d satisfy a condition defined by the following formula 2:

$$0.00543d \leq H \leq 0.00865d \quad (2)$$

and

the radius R of each arc-shaped groove and the

depth H satisfy a condition defined by the following formula 3:

$$4.960H \leq R \leq 8.802H \quad (3)$$

2. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of each arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-1:

$$0.00656d \leq H \leq 0.00773d \quad (2\text{-}1)$$

3. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-1a:

$$5.834H \leq R \leq 7.082H \quad (3\text{-}1a)$$

4. An overhead cable as set forth in claim 2, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-1b:

$$5.834H \leq R \leq 7.082H \quad (3\text{-}1b)$$

5. An overhead cable as set forth in claim 1,

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wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of each arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2a:

$$H=0.00721d \qquad (2\text{-}2a)$$

6. An overhead cable as set forth in claim 3, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of each arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2b:

$$H=0.00721d \qquad (2\text{-}2b)$$

7. An overhead cable as set forth in claim 4, wherein the outer circumferential surface formed by the outermost members being formed so that

the depth H of each arc-shaped groove of the polygon and the diameter d satisfy a condition defined by the following formula 2-2c:

$$H=0.00721d \qquad (2\text{-}2c)$$

8. An overhead cable as set forth in claim 1, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of each arc-shaped groove and the depth H satisfy a condition defined by the following

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formula 3-2a:

$$R=6.71H \qquad (3\text{-}2a)$$

9. An overhead cable as set forth in claim 2, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of ~~an~~ each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2b:

$$R=6.71H \qquad (3\text{-}2b)$$

10. An overhead cable as set forth in claim 3, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of ~~an~~ each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2c:

$$R=6.71H \qquad (3\text{-}2c)$$

11. An overhead cable as set forth in claim 5, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of ~~an~~ each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2d:

$$R=6.71H \qquad (3\text{-}2d)$$

12. An overhead cable as set forth in claim 6, wherein the outer circumferential surface formed by the

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outermost members being formed so that

the radius R of each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2e:

$$R=6.71H \qquad (3\text{-}2e)$$

13. An overhead cable as set forth in claim 7, wherein the outer circumferential surface formed by the outermost members being formed so that

the radius R of each arc-shaped groove and the depth H satisfy a condition defined by the following formula 3-2f:

$$R=6.71H \qquad (3\text{-}2f)$$

14. An overhead cable as set forth in claim 1, wherein

the outermost members are comprised of a plurality of segments,

each segment is obtained by dividing the polygon at the vertexes, has an inner surface having a partially arc-shaped sectional shape of a radius d1 (mm) (d1<d), has an outer surface having a flat sectional shape connecting the adjoining vertexes, and has two corners of the flat outer surface formed to define ~~a said~~ each arc-shaped groove of said radius R and depth H together with the corners of the adjoining segments, and

the plurality of segments being arranged so

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that they adjoin each other so the corners of the adjoining segments form said arc-shaped grooves and to cover the outer circumference of the members positioned inside them and so that the plurality of arc-shaped grooves circle the overhead cable in spirals in the longitudinal direction at a predetermined pitch.